

Getting Into Production

Chapter 10



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Google App Engine Hosting

- We choose App Engine as a development environment because we can use Google's infrastructure for hosting
- Google makes the rules - and we learn them

Resource	Free Default Quota		Billing Enabled Quota	
	Daily Limit	Maximum Rate	Daily Limit	Maximum Rate
Requests	1,300,000 requests	7,400 requests/minute	43,000,000 requests	30,000 requests/minute
Outgoing Bandwidth (billable, includes HTTPS)	1 gigabyte	56 megabytes/minute	1 gigabyte free; 1,046 gigabytes maximum	740 megabytes/minute
Incoming Bandwidth (billable, includes HTTPS)	1 gigabyte	56 megabytes/minute	1 gigabyte free; 1,046 gigabytes maximum	740 megabytes/minute
CPU Time (billable)	6.5 CPU-hours	15 CPU-minutes/minute	6.5 CPU-hours free; 1,729 CPU-hours maximum	72 CPU-minutes/minute

Outgrowing the maximums? [Request an increase.](#)

<http://code.google.com/appengine/docs/quotas.html>

Resource	Free Default Quota		Billing Enabled Quota	
	Daily Limit	Maximum Rate	Daily Limit	Maximum Rate
Mail API Calls	7,000 calls	32 calls/minute	1,700,000 calls	4,900 calls/minute
Recipients Emailed (billable)	2,000 recipients	8 recipients/minute	2,000 recipients free; 7,400,000 recipients maximum	5,100 recipients/minute
Admins Emailed	5,000 mails	24 mails/minute	3,000,000 mails	9,700 mails/minute
Message Body Data Sent	60 megabytes	340 kilobytes/minute	29 gigabytes	84 megabytes/minute
Attachments Sent	2,000 attachments	8 attachments/minute	2,900,000 attachments	8,100 attachments/minute
Attachment Data Sent	100 megabytes	560 kilobytes/minute	100 gigabytes	300 megabytes/minute

Outgrowing the maximums? [Request an increase.](#)

<http://code.google.com/appengine/docs/quotas.html>

When you run out...

The cost for computing resources is as follows:

Resource	Unit	Unit cost
Outgoing Bandwidth	gigabytes	\$0.12
Incoming Bandwidth	gigabytes	\$0.10
CPU Time	CPU hours	\$0.10
Stored Data	gigabytes per month	\$0.15
Recipients Emailed	recipients	\$0.0001

<http://code.google.com/appengine/docs/billing.html>

Activating Your App Engine

- You must have a Google account (i.e. GMail)
- Add App Engine to the account
 - <http://appengine.google.com>
- Will require a SMS-Capable phone and number

Start

Google app engine drchuck.ims@gmail.com | My Account | Help | Sign out

Welcome to Google App Engine

Before getting started, you want to learn more about developing and deploying applications. Learn more about Google App Engine by reading the [Getting Started Guide](#), the [FAQ](#), or the [Developer's Guide](#).

[Create an Application](#)

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Google app engine drchuck.ims@gmail.com | My Account | Help | Sign out

Verify Your Account by SMS

To create applications with Google App Engine, you need a verification code. Select the country and carrier for your mobile phone and enter your mobile phone number. The verification code will be sent to it via SMS. Note you will only need to verify your account once.

Country and Carrier:
 United States (US) AT&T

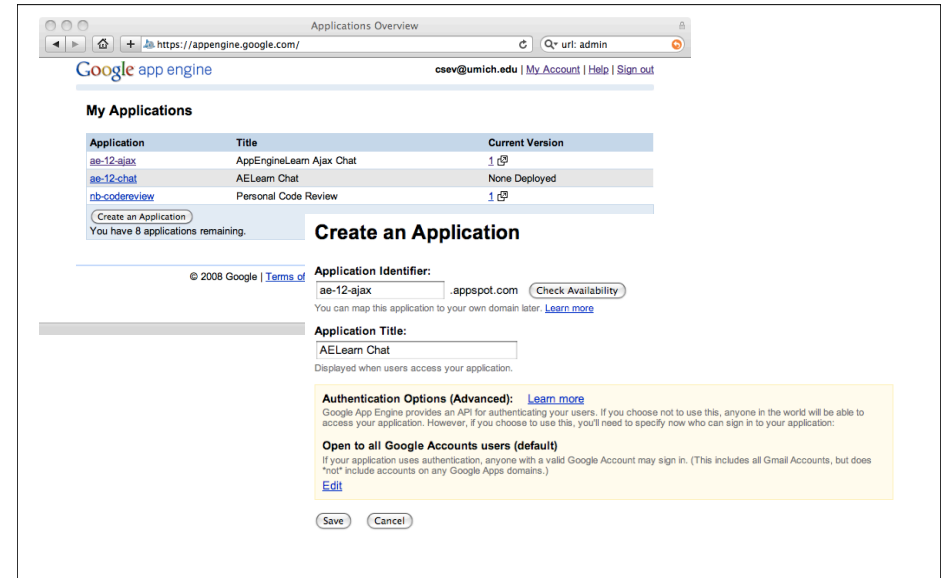
If your country and carrier are not on the list, select Other (Not Listed). [What carriers are supported?](#)

Mobile Number:
 Include your country code and full phone number. eg. +1 650 555 1212

[Send](#)

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Making a New Application



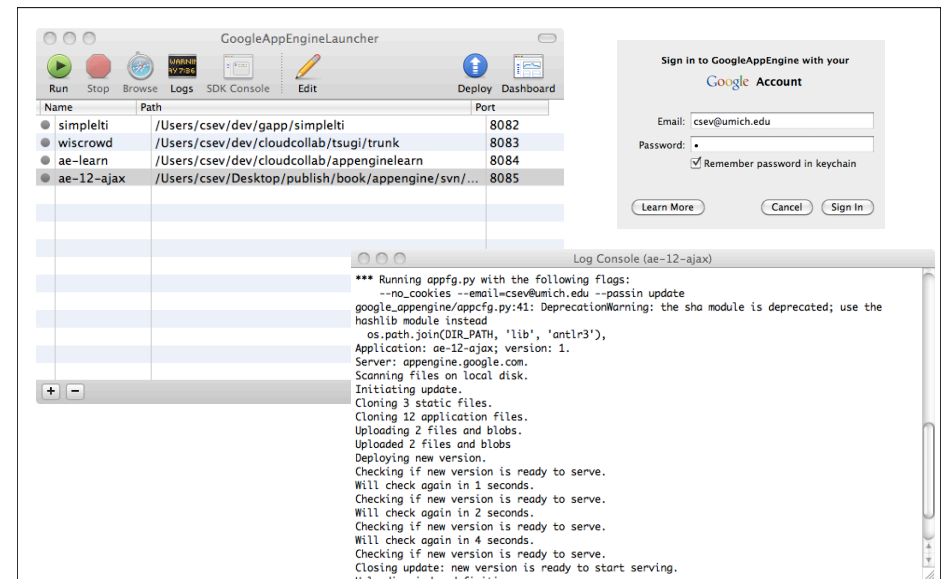
application: ae-12-ajax
version: 1
runtime: python
api_version: 1

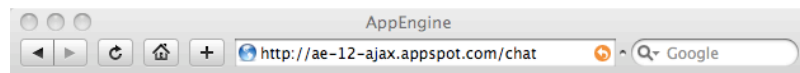
handlers:
- url: /static
static_dir: static

- url: /_ah/admin.*
script: \$PYTHON_LIB/google/appengine/ext/admin
login: admin

- url: /.*
script: index.py

Modify
app.yaml





App Engine [Sites](#) [Topics](#) [Chat](#) [Members](#) [Logout \(csev\)](#)

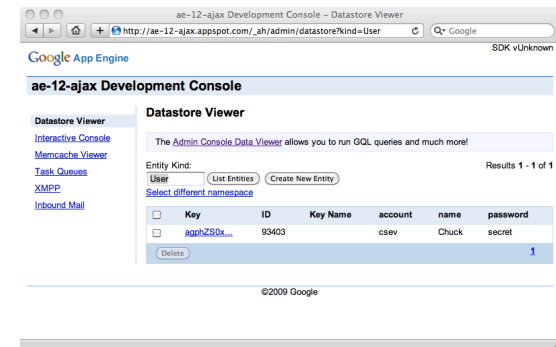
AppEngine Chat

Yes - it is actually very easy to use. (noah) Thu 01 Jan 2009

Very cool - have you tested the new version feature yet? (csev) Thu 01 Jan 2009

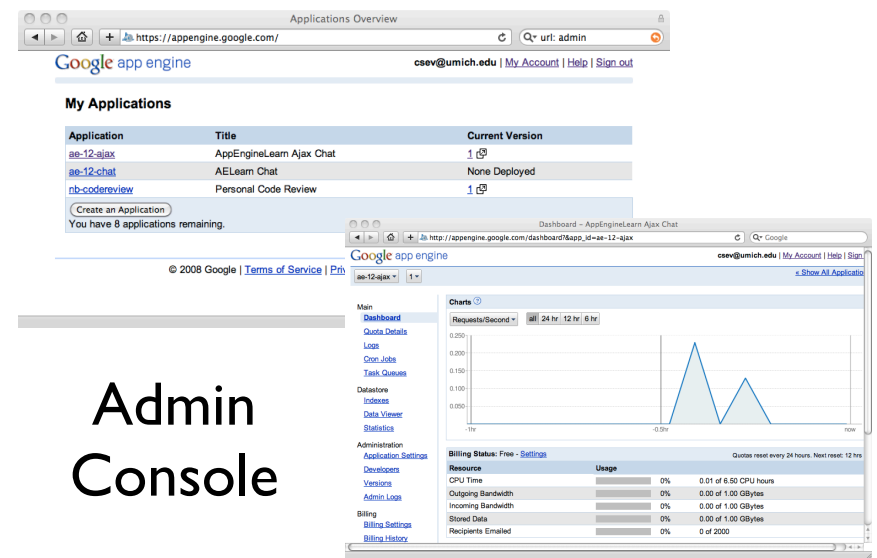
We are up and running on appspot! (noah) Thu 01 Jan 2009

Development Console

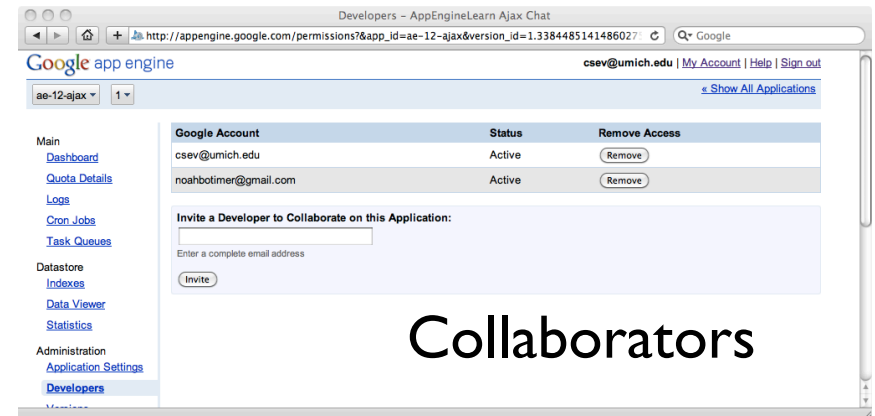
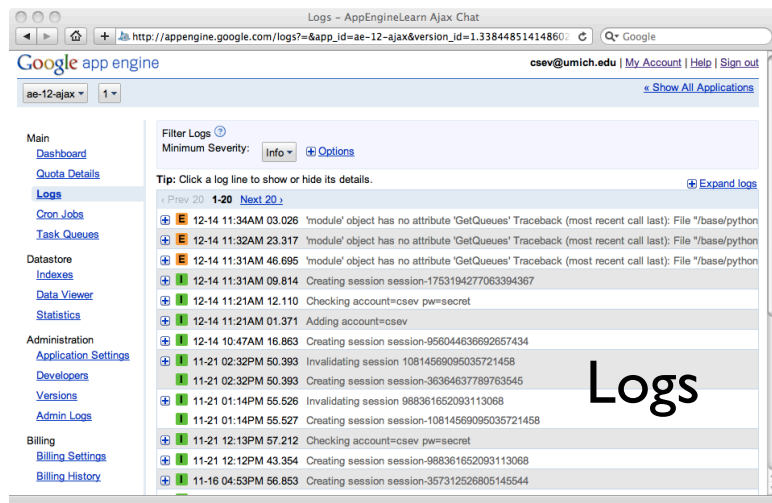


Note - You must enter the Entity Kind (there is no drop-down)

Development Console



Admin Console



New Version...

- Make changes locally - re-upload to replace your code on the server
- You can have multiple versions going at one time and control which is active by changing the version number in the app.yaml

application: ae-l2-ajax
version: 1
runtime: python
api_version: 1

handlers:

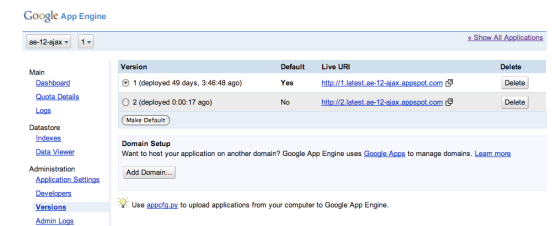
- url: /static
static_dir: static

- url: /admin/*

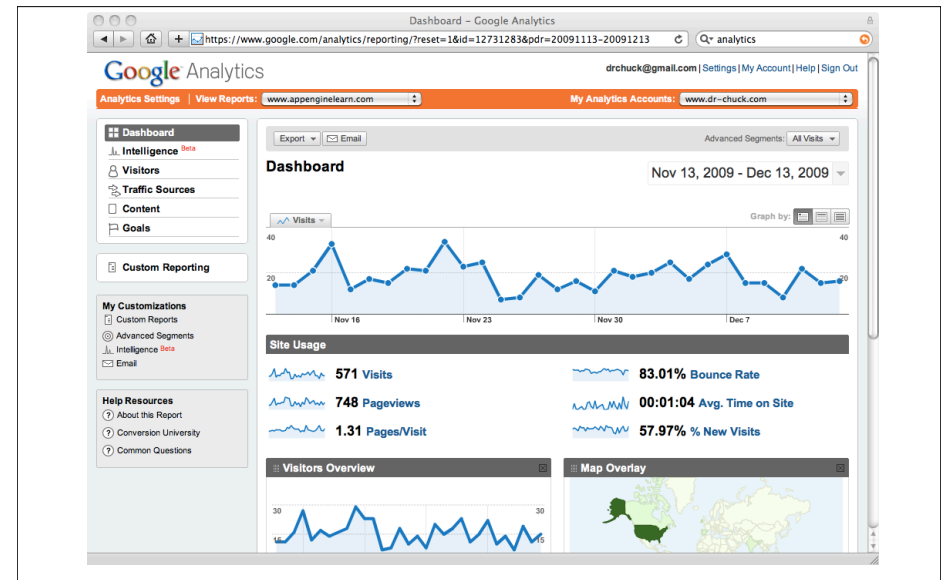
script: \$PYTHON_LIB/google/appengine/ext/admin
login: admin

- url: /*
script: index.py

Normally when you upload, it replaces the copy you have - unless you change the version - changing the version is rare.

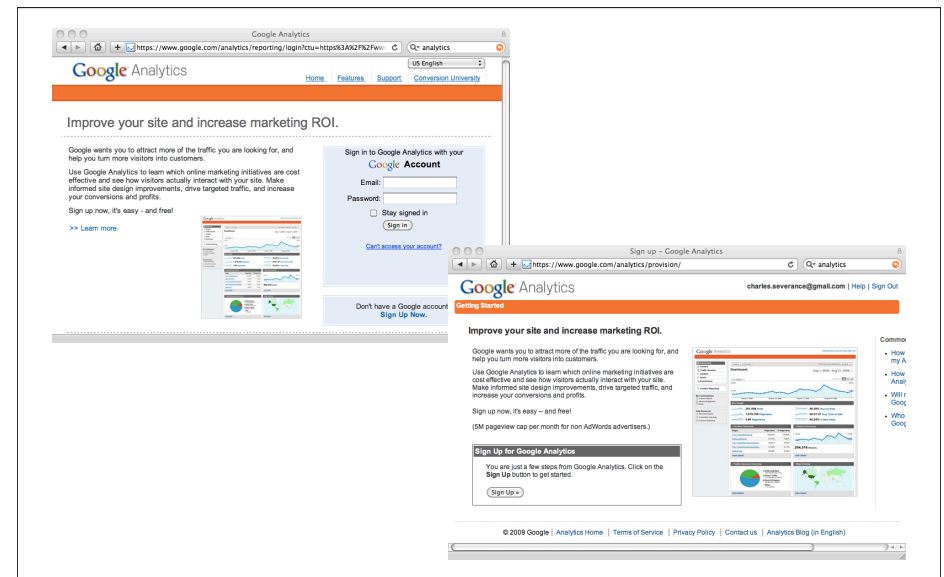


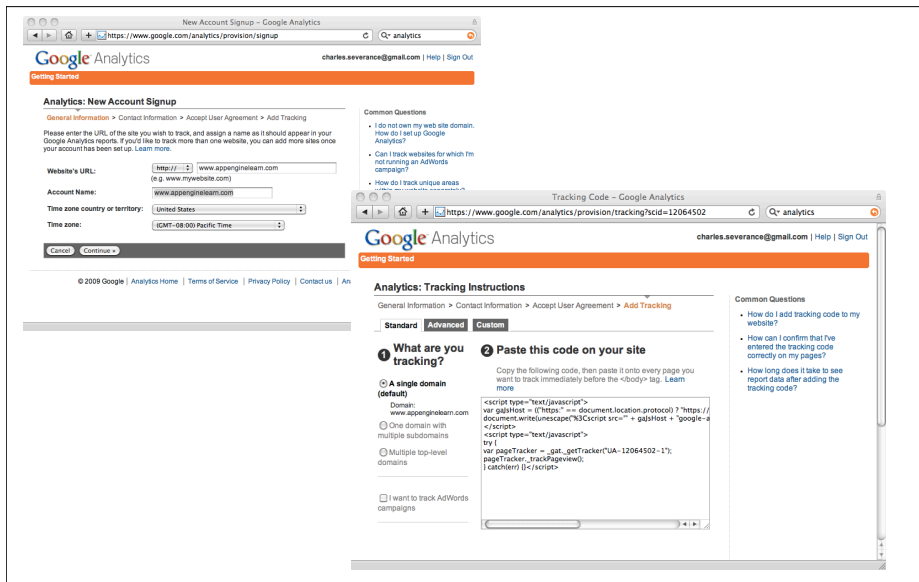
Google Analytics



Google Analytics

- Free Google service to track usage of your site
- Steps:
 - Setup Analytics
 - Add Javascript to your site





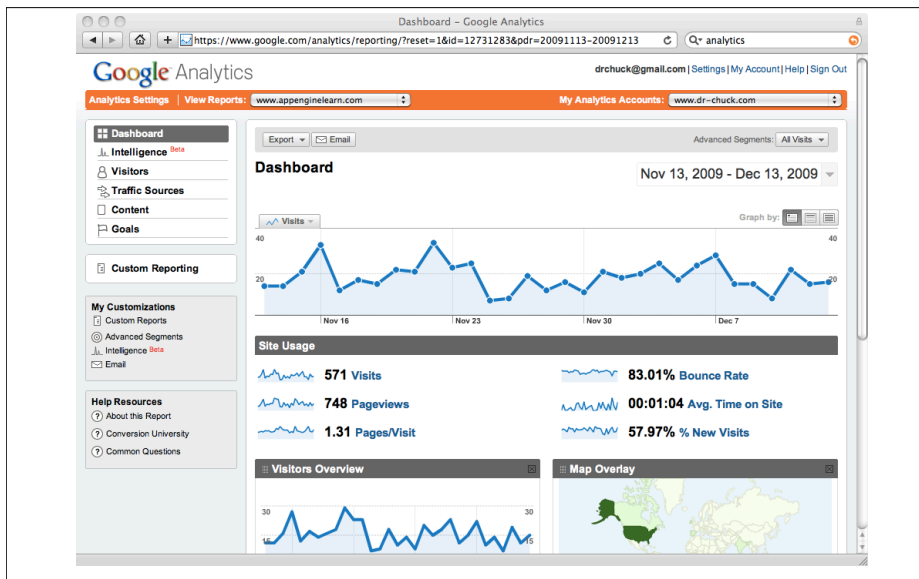
```

<div id="bodycontent">
  {% block bodycontent %}
    Replace this
  {% endblock %}
</div>

<script type="text/javascript">
var gaJsHost = (("https:" == document.location.protocol) ? "https://ssl." : "http://www.");
document.write(unescape("%3Cscript src='" + gaJsHost + "google-analytics.com/ga.js' type='text/javascript'%3E%3C/script%3E"));
</script>
<script type="text/javascript">
try {
var pageTracker = _gat._getTracker("UA-423997-9");
pageTracker._trackPageview();
} catch(err) {}</script>
</html>

```

_base.htm



Google AdSense

Work for Google! Work from home!

<http://www.google.com/adsense/>

AppEngineLearn

These are supporting materials for the O'Reilly book titled [Using Google App Engine](#). This book is aimed at people who want to gain skill in web programming in general and the Google App Engine. The book has been used to support many beginning courses ranging from High School to College. As such there are chapters on Python, HTML, CSS, and HTTP. More advanced programmers will likely want to skip over the first few chapters.

I see Google App Engine as a way for virtually everyone to have their own interactive software-based web site regardless of their level of programming skills. Increasingly, web programming will simply need to be a competency like mathematics and this book is dedicated to teaching everyone about Google App Engine.

- You can download the [Sample Applications](#) from the book.
- Installing [Python and Your Programmer Text Editor](#)
 - Macintosh: ([Handout](#), [Screencast](#), [YouTube](#))
 - Windows Vista: ([Handout](#), [High Quality Screencast](#), [YouTube](#))
 - Windows XP: ([Handout](#), [Screencast](#), and [YouTube](#))
- You may want to also download the [App Engine Helper Scripts](#). This is a script (one for Mac and one for Windows) that you put in your apps folder to launch the App Engine. These scripts simplify setting the paths, etc. There is a README.txt file in the ZIP describing how to use the utilities.
- The Request Dumper Program - dumps out the HTTP Request Data ([Handout](#), [Screencast](#), [YouTube](#)).
- A Basic Web Application for for Google App Engine ([Handout](#), [Screencast](#), [YouTube](#)).
- Simple Session Implementation: ([Utility Code](#) and [Documentation](#))

Internet Marketing Degree
Learn Search Engine Optimization. Get Your Marketing Degree Online!
[Python Tutorials](#)
Exclusive PDF from Mark Summerfield. Free! Enter to Win Python Prizes.
[Castrol Anti-Sludge Oil](#)
Superior Protection against Sludge Build Up. Learn about Castrol GTX®.

Sign Up for AdSense

- Add to your Google Account
- Will need identity - will call you on the phone
- Once you make revenue, they will want tax information

<http://www.google.com/adsense/>

Google AdSense

drchuck@gmail.com - Last login: 3 days ago - [Log Out](#) - [Help](#)
Publisher ID: pub-0127400494105307

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[Get Ads](#) | [Manage Ads](#) | [Color Palettes](#) | [Channels](#) | [Competitive Ad Filter](#) | [Site Authentication](#) | [Ad Review Center](#) | [Allowed Sites](#)

[Get Ads](#) > **AdSense for Content**

AdSense for Content

Choose Ad Type > Choose Ad Format and Colors > Choose Ad Channels > Save and Get Ad Code

[Wizard](#) | [Single page](#)

You can customize your ads to fit in with your pages. Use the options below to specify ad size, style, and more.

Format

Ad units come in a variety of sizes - view all the options on our [Ad Formats](#) page.

300 x 250 Medium Rectangle

Colors

Choose from one of our pre-designed color palettes, or create your own palette. [Tips](#)

* Some options apply to text ads only.

Sample
[Ad Title](#)
Ad text
[www.ad-url.com](#)

Ads by Google

Palettes: Default Google palette | [Save as new palette](#) | [Edit palettes](#)

Border # FFFFFFFF
Title # 0000FF
Background # FFFFFFFF
Text # 000000
URL # 008000

Google AdSense

drchuck@gmail.com - Last login: 3 days ago - [Log Out](#) - [Help](#)
Publisher ID: pub-0127400494105307

[Reports](#) [AdSense Setup](#) [My Account](#) [Resources](#)

[Get Ads](#) | [Manage Ads](#) | [Color Palettes](#) | [Channels](#) | [Competitive Ad Filter](#) | [Site Authentication](#) | [Ad Review Center](#) | [Allowed Sites](#)

[Get Ads](#) > **AdSense for Content**

AdSense unit: 300x250, test 12/14/09

Your AdSense unit has been saved. Changes may not appear for up to 10 minutes.

You may paste this code into [any web page or website](#) that complies with our [program policies](#). For more help with implementing the AdSense code, please see our [Code Implementation Guide](#).

Tip: Did you know that you can make changes to your ads without replacing the ad code on your site? Try [Manage Ads](#).

Your AdSense unit code:

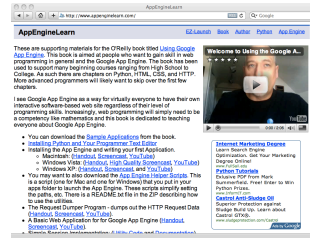
```
<script type="text/javascript">
google_ad_client = "pub-0127400494105307";
/* 300x250, test 12/14/09 */
google_ad_slot = "5653462015";
google_ad_width = 300;
google_ad_height = 250;
//-->
</script>
<script type="text/javascript">
src="http://pagead2.googlesyndication.com/pagead/show_ads.js";
</script>
```

[Preview this AdSense unit](#) | [Edit this AdSense unit](#) | [Create a new AdSense unit](#)

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```
{% extends "_base.htm" %}
{% block bodycontent %}
<div style="float:right">
<script type="text/javascript">
window.google_analytics_uacct = "UA-423997-9";
</script>
<script type="text/javascript"><!--
google_ad_client = "pub-0127400494105307";
/* 250x250 aelearn, created 9/10/09 */
google_ad_slot = "2704510199";
google_ad_width = 250;
google_ad_height = 250;
//-->
</script>
<script type="text/javascript"
src="http://pagead2.googlesyndication.com/pagead/show_ads.js">
</script>
</div>
These are supporting materials for the O'Reilly book titled ...
```

index.htm



Summary

- Reasonable hosting is free for up to 10 applications per Gmail account (and cell phone number)
- You can add free tracking to your site using Google Analytics
- You can make money with Google Ads - probably not a good idea for a portfolio site :)